

=> t 16 cit, ab 1-6

1. 5,874,215, Feb. 23, 1999, Amplification of simple sequence repeats; Martin T. R. Kuiper, et al., 435/6, 91.2; 536/23.1, 24.3 [IMAGE AVAILABLE]

US PAT NO: 5,874,215 [IMAGE AVAILABLE] L6: 1 of 6

ABSTRACT:

The invention relates to a process for the selective amplification of restriction fragments comprising **simple sequence repeats**. The process of the invention can be used in a range of fields including but not limited to **plant** and animal breeding, genetic identity testing in humans, **plants** and animals, disease identification and screening, forensic analysis and gene tagging and isolation.

2. 5,582,979, Dec. 10, 1996, Length **polymorphisms** in (dC-dA).sub.n.(dG-dT).sub.n sequences and method of using the same; James L. Weber, 435/6, 91.2; 536/23.1, 24.3, 24.31 [IMAGE AVAILABLE]

US PAT NO: 5,582,979 [IMAGE AVAILABLE] L6: 2 of 6

ABSTRACT:

Abundant interspersed repetitive DNA sequences of the form (dC-dA).sub.n.(dG-dT).sub.n have been shown to exhibit length **polymorphisms**. The **polymorphisms** can be used to identify individuals as in paternity and forensic testing, and can be used to map genes which are involved in genetic diseases or in other economically important traits. The polynucleotide provided consists of a DNA fragment, preferably .1 to eq. 300 base pairs in length containing one or more blocks of **tandem** dinucleotide **repeats** (dC-dA).sub.n.(dG-dT).sub.n wherein n.gtoreq.6 and preferably .gtoreq.10.

3. 5,413,908, May 9, 1995, Method of characterizing genomic DNA by reference to a genetic variable; Alec J. Jeffreys, 435/6; 536/23.1, 24.2, 24.31 [IMAGE AVAILABLE]

US PAT NO: 5,413,908 [IMAGE AVAILABLE] L6: 3 of 6

ABSTRACT:

It has been a problem that the identification of genomic DNA by restriction fragment length **polymorphisms** is limited, owing to the low level of genetic variation ordinarily detectable by cloned DNA in this method. The invention provides for improved identification by making use of the existence of DNA regions of hypervariability, otherwise called **minisatellite** regions in which the DNA contains **tandem repeats** or quasi-block copolymer sequences and the number of repeats or copolymer units varies considerably from one individual to another. It has now been found that many such regions can be probed simultaneously in such a way as to display this variability using a DNA or other polynucleotide probe of which the essential constituent is a short core sequence tandemly repeated at least 3 and preferably at least 10 times. The probing reveals differences in genomic DNA at multiple highly-polymorphic **minisatellite** regions to produce an individual-specific DNA "fingerprint" of general use for genetic identification purposes. The "core" used is typically a sequence of 6 to 16 nucleotides contained in or having a high degree of homology with a nucleotide sequence of formula GGAGGTGGCAGGAXG (2) in which X is A or G,

or AGAGGTGGGCAGGTGG (3) or GGAGGYGGGCAGCAGG (4) in which Y is C or T, or with a 12-15 nucleotide sequence of formula T(C).sub.m GGAGGAXGG(G).sub.p C (5A) or T(C).sub.m GGAGGA(A).sub.q GGGC (5B) in which X is A or G, M is 0, 1 or 2, p is 0 or 1, and q is 0 or 1, or GPGGGCWGGWXG (6) in which X is as above, P is not G, and W=A or G. The invention is particularly useful in paternity and maternity testing, forensic medicine and the diagnosis of genetic diseases and cancer.

4. 5,175,082, Dec. 29, 1992, Method of characterizing genomic DNA; Alec J. Jeffreys, 435/6; 514/44; 536/24.31 [IMAGE AVAILABLE]

US PAT NO: 5,175,082 [IMAGE AVAILABLE]

L6: 4 of 6

ABSTRACT:

Test samples of genomic DNA may be characterized by the use of polynucleotide probes each of which is specific for an informative genetic locus. Such probes may be prepared by the use of probes which are capable of differentiating DNA by reference to more than one polymorphic **minisatellite** region or hypervariable locus. The polynucleotides and probes of the invention are of use for genetic identification purposes, paternity and maternity testing and particularly in forensic medicine.

5. 5,075,217, Dec. 24, 1991, Length **polymorphisms** in (dC-dA).sub.n .multidot.(dG-dT).sub.n sequences; James L. Weber, 435/6, 5; 536/25.5 [IMAGE AVAILABLE]

US PAT NO: 5,075,217 [IMAGE AVAILABLE]

L6: 5 of 6

ABSTRACT:

The present invention is directed to a product and process for characterizing the human genome utilizing polymorphic DNA fragments containing (dC-dA).sub.n .multidot.(dG-dT).sub.n. The process comprises identifying polymorphic DNA fragments containing the above **tandem repeat** sequence followed by characterizing admixtures of genomic material by amplification of fragments containing the **tandem repeat** sequence using substantially unique and non-polymorphic primer sequences and appropriate separation of the so amplified fragments.

6. 5,068,176, Nov. 26, 1991, Method for the simultaneous determination of DNA sequence variations at a large number of sites, and a kit suitable therefor; Jan Vijg, et al., 435/6, 5, 810; 436/501, 808; 536/24.31 [IMAGE AVAILABLE]

US PAT NO: 5,068,176 [IMAGE AVAILABLE]

L6: 6 of 6

ABSTRACT:

This invention relates to a method of simultaneously determining DNA sequence variations on a large number of loci, and a kit suitable therefor. The method comprises an electrophoretic separation of restriction fragments in two dimensions on the basis of two independent criterions, namely, length and base pair sequence, and a detection of separated fragments by means of a labelled probe comprising one or more units of **minisatellite** sequences. Preferred probes are GC-rich **minisatellite** core sequences.

=> s pn=5874215

L1 1 PN=5874215

=> s plant or plants

127287 PLANT

80267 PLANTS

L2 155510 PLANT OR PLANTS

=> s l1 and l2

L3 1 L1 AND L2

=> d kwic

US PAT NO: 5,874,215 [IMAGE AVAILABLE] L3: 1 of 1

ABSTRACT:

The . . . simple sequence repeats.

The process of the invention can be used in a range of fields including but not limited to **plant** and animal breeding, genetic identity testing in humans, **plants** and animals, disease identification and screening, forensic analysis and gene tagging and isolation.

SUMMARY:

BSUM(2)

This . . . applications of DNA fingerprinting and the use of DNA markers in a range of fields including but not limited to **plant** and animal breeding, genetic identity testing in humans, **plants** and animals, disease identification and screening, forensic analysis and gene tagging and isolation. More specifically, this invention relates to general. . .

SUMMARY:

BSUM(4)

The . . . rapidly expanded the range of applications of DNA typing and genetic analysis in as widely diverse fields as microbial typing, **plant** and animal breeding and human genetic testing. These methods detect minor variations in the genetic material, termed DNA polymorphisms. The. . .

SUMMARY:

BSUM(14)

The . . . on the selective amplification of restriction fragments comprising simple sequence repeats obtained for example by digesting genomic DNA from animals, **plants** or humans with restriction enzymes and comprising the following steps: (a) digesting the starting DNA with two or more different. . .

SUMMARY:

BSUM(23)

The starting DNA can be genomic DNA from eukaryotes such as **plants**, animals or human beings or fragments thereof.

DETDESC:

DETD(7)

The . . . of DNA fragments should be <500 bp for high quality AFLP fingerprints. MseI (TTAA) gives small DNA fragments in most **plant**- and animal species. Thus, the DNA is trimmed down to a size that is amplified well in the subsequent polymerase. . .

CLAIMS:

CLMS(15)

15. Process according to claim 8 wherein said eukaryotic organisms are selected from the group consisting of animals, **plants** and humans.

=> s pn=5582979

L4 1 PN=5582979

=> s l4 and l2

L5 1 L4 AND L2

=> d kwic

US PAT NO: 5,582,979 [IMAGE AVAILABLE] L5: 1 of 1

SUMMARY:

BSUM(25)

A fourth specific application is in commercial **plant** breeding. Traits of major economic importance in **plant** crops can be identified through linkage analysis using polymorphic DNA markers. The present invention offers an efficient new approach to developing such markers for various **plant** species.

=> s pn=5413908

L6 1 PN=5413908

=> s l6 and l2

L7 1 L6 AND L2

=> d kwic

US PAT NO: 5,413,908 [IMAGE AVAILABLE] L7: 1 of 1

SUMMARY:

BSUM(125)

12. It is anticipated that the polynucleotides or probes derived therefrom have a potential use in **plant** breeding.

=> s pn=5175082

L8 1 PN=5175082

=> s l8 and l2

L9

1 L8 AND L2

=> d kwic

US PAT NO: 5,175,082 [IMAGE AVAILABLE]

L9: 1 of 1

SUMMARY:

BSUM(1)

The . . . RNA probes, their preparation and their use in genetic characterization. Such uses may include for example establishing human, animal or **plant** origin, and the polynucleotides and probes of the invention may thus find use for example in paternity disputes or forensic. . .

SUMMARY:

BSUM(7)

It . . . "individual" has been used above to refer not only to humans, but also to other animals as well as to **plants** and to cell lines derived from such humans, animals and **plants**. In each case, however, the sample of randomly selected unrelated individuals will all be from the same species.

SUMMARY:

BSUM(39)

A region of human, animal or **plant** DNA at a recognised locus or site is said be hypervariable if it occurs in many different forms e.g. as. .

SUMMARY:

BSUM(41)

A region of human, animal or **plant** DNA which is comprised of tandem repeats of a short DNA sequence. All repeat units may not necessarily show perfect. . .

SUMMARY:

BSUM(68)

10. Routine quality control of cultured animal or **plant** cell lines, checking for contamination of pure cell lines and for routine identification work.

SUMMARY:

BSUM(70)

12. It is anticipated that the polynucleotides or probes derived therefrom have a potential use in **plant** breeding. The locus specific probes of the present invention are, however, particularly useful in forensic medicine as demonstrated in Example. . .

=> s pn=5075217

L10 1 PN=5075217

=> s l10 and l2

L11 1 L10 AND L2

=> d kwic

US PAT NO: 5,075,217 [IMAGE AVAILABLE]

L11: 1 of 1

DETDESC:

DETD(12)

A fourth specific application is in commercial **plant** breeding. Traits of major economic importance in **plant** crops can be identified through linkage analysis using polymorphic DNA markers. The present invention offers an efficient new approach to developing such markers for various **plant** species.

=> s pn=5068176

L12 1 PN=5068176

=> s l12 and l2

L13 1 L12 AND L2

=> d kwic

US PAT NO: 5,068,176 [IMAGE AVAILABLE]

L13: 1 of 1

SUMMARY:

BSUM(19)

Thus . . . maps of an individual (not only Man, but also animals, such as, in particular, pedigree horses, pedigree dogs, etc., or **plants** with similar polymorphic sequences in their genomes) by means of electrophoretic separation in two dimensions of restriction fragments of the . . .